



# Cat® 980K

## WHEEL LOADER

### FEATURES:

- **Performance Series Buckets** – With standard Performance Series Buckets, operators benefit from reduced dig times and better material retention; ultimately translating into significant productivity and fuel efficiency improvements.
- **Load Sensing Hydraulics** – Load sensing hydraulics produce flow and pressure for the implement system upon demand and only in amounts necessary to perform the needed work functions, enhancing machine productivity and fuel efficiency.
- **Operator Environment** – The new four post ROPS cab provides enhanced comfort, visibility, and productivity resulting in a more efficient operator. New features include an ergonomic electro-hydraulic (EH) joystick steering system with force feedback (speed sensitive), automatic climate control, viscous mounts to reduce noise and vibration levels, post mounted membrane switches, and a curved windshield giving the operator a panoramic view.
- **Cat® C13 ACERT™ Engine** – The innovative Cat C13 ACERT engine is optimized for maximum fuel efficiency and increased power density while meeting all Tier 4 Interim and Stage IIIB emissions requirements.
- **Lockup Torque Converter** – The optional lockup torque converter on the 980K significantly enhances productivity and fuel efficiency while performing load and carry applications, especially on grades. The lockup clutch eliminates torque converter losses, ultimately resulting in lower fuel consumption while achieving higher travel speeds up a grade.
- **Powershift Transmission** – The K Series™ transmission incorporates a new shifting strategy that delivers smoother shifts and faster acceleration.
- **Fuel Efficiency** – The 980K wheel loader has been integrated as a system; from the linkage and work tool carrying the payload, to the engine, transmission and torque converter moving the machine, the system has been optimized to achieve the lowest cost per ton.

## Specifications

### Engine

| Engine Model                              | Cat® C13 ACERT™ |                       |
|---|-----------------|-----------------------|
| Max. Gross Power (1,600 rpm) – SAE J1995  | 303 kW          | 406 hp                |
| Max. Net Power (1,600 rpm) – ISO 9249     | 274 kW          | 369 hp                |
| Max. Net Power (1,600 rpm) – SAE J1349    | 274 kW          | 369 hp                |
| Peak Gross Torque (1,300 rpm) – SAE J1995 | 2089 N·m        | 1,541 ft·lb           |
| Peak Net Torque (1,200 rpm) – SAE J1349   | 1959 N·m        | 1,445 ft·lb           |
| Bore                                      | 130 mm          | 5.1 in                |
| Stroke                                    | 157 mm          | 6.2 in                |
| Displacement                              | 12.5 L          | 762.8 in <sup>3</sup> |

- Cat engine with ACERT™ Technology – meets EPA Tier 4 Interim/ EU Stage IIIB requirements.

### Weights

|                  |           |           |
|------------------|-----------|-----------|
| Operating Weight | 30 319 kg | 66,823 lb |
|------------------|-----------|-----------|

- For 5.3 m<sup>3</sup> (6.9 yd<sup>3</sup>) general purpose buckets with bolt-on cutting edges.

### Buckets

|                   |   |   |
|-------------------|---|---|
| Bucket Capacities | 4.00 m <sup>3</sup> -<br>12.20 m <sup>3</sup> | 5.25 yd <sup>3</sup> -<br>16.00 yd <sup>3</sup> |
|-------------------|---|---|

### Operating Specifications

|   |           |           |
|---|-----------|-----------|
| Static Tipping Load Full 37° Turn – ISO 14397-1*  | 18 805 kg | 41,447 lb |
| Static Tipping Load Full 37° Turn – Rigid Tires** | 19 967 kg | 44,008 lb |
| Breakout Force                                    | 238 kN    | 53,475 lb |

- For 5.3 m<sup>3</sup> (6.9 yd<sup>3</sup>) general purpose buckets with bolt-on cutting edges.
- \* Full compliance to ISO 14397-1 (2007) Section 1 thru 6, which requires 2% verification between calculations and testing.
- \*\* Compliance to ISO 14397-1 (2007) Sections 1 thru 5.

### Transmission

|           | Standard Torque Converter |          | Lockup Torque Converter |          |
|-----------|---------------------------|----------|-------------------------|----------|
| Forward 1 | 6.6 km/h                  | 4.1 mph  | 6.6 km/h                | 4.1 mph  |
| Forward 2 | 11.7 km/h                 | 7.3 mph  | 12.3 km/h               | 7.7 mph  |
| Forward 3 | 20.5 km/h                 | 12.9 mph | 21.8 km/h               | 13.6 mph |
| Forward 4 | 35.8 km/h                 | 22.4 mph | 38.8 km/h               | 24.1 mph |
| Reverse 1 | 7.5 km/h                  | 4.6 mph  | 7.5 km/h                | 4.7 mph  |
| Reverse 2 | 13.3 km/h                 | 8.3 mph  | 14.1 km/h               | 8.8 mph  |
| Reverse 3 | 23.3 km/h                 | 14.8 mph | 24.9 km/h               | 15.5 mph |
| Reverse 4 | 40.8 km/h                 | 26.3 mph | 44.3 km/h               | 27.5 mph |

- Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 887 mm (35 in) roll radius.



# 980K Wheel Loader

## Hydraulic System

|  |              |               |
|--|--------------|---------------|
| Steering System Pump Type                                    | Piston       |               |
| Implement System –<br>Maximum Pump Output (2,200 rpm)        | 460 L/min    | 121.5 gal/min |
| Implement System –<br>Maximum Operating Pressure             | 31 000 kPa   | 4,496 psi     |
| Implement System – Optional 3rd Function<br>Maximum Flow     | 300 L/min    | 79.3 gal/min  |
| Implement System – Optional 3rd Function<br>Maximum Pressure | 20 700 kPa   | 3,000 psi     |
| Hydraulic Cycle Time –<br>Raise from Carry Position          | 6.4 Seconds  |               |
| Hydraulic Cycle Time –<br>Dump at Maximum Raise              | 1.7 Seconds  |               |
| Hydraulic Cycle Time –<br>Lower, Empty, Float Down           | 3.3 Seconds  |               |
| Hydraulic Cycle Time – Total                                 | 11.4 Seconds |               |

- Cycle time with rated payload.

## Brakes

|        |   |
|--------|---|
| Brakes | Meet OSHA, SAE J1473 OCT90 and ISO 3450-1985 required standards |
|--------|---|

## Axles

|                                    |                         |         |
|------------------------------------|-------------------------|---------|
| Front                              | Fixed                   |         |
| Rear                               | Oscillating ±13 degrees |         |
| Maximum Single-Wheel Rise and Fall | 548 mm                  | 21.6 in |

## Tires

- Choose from a variety of tires to match your application.
- Choices include:
  - 29.5R25 VMT BS L3 Radial
  - 29.5-25 SRG LD FS E3/L3 Bias
  - 29.5R25 XHA2 MX L3 Radial
  - 29.5R25 XLD D1 MX L4 Radial
  - 29.5R25 VSNT BS L4 Radial
  - 29.6-25 SDT LD FS L5 Bias
  - 29.5R25 VSDL BS L5 Radial
  - 29.5R25 XLDD2 MX L5 Radial
  - 29.5R25 X MINE D2 MX L5 Radial
- NOTE: In certain applications (such as load and carry), the loader's productive capabilities might exceed the tires' tonnes-km/h (ton-mph) capabilities. Caterpillar recommends that you consult a tire supplier to evaluate all conditions before selecting a tire model. Other special tires are available on request.

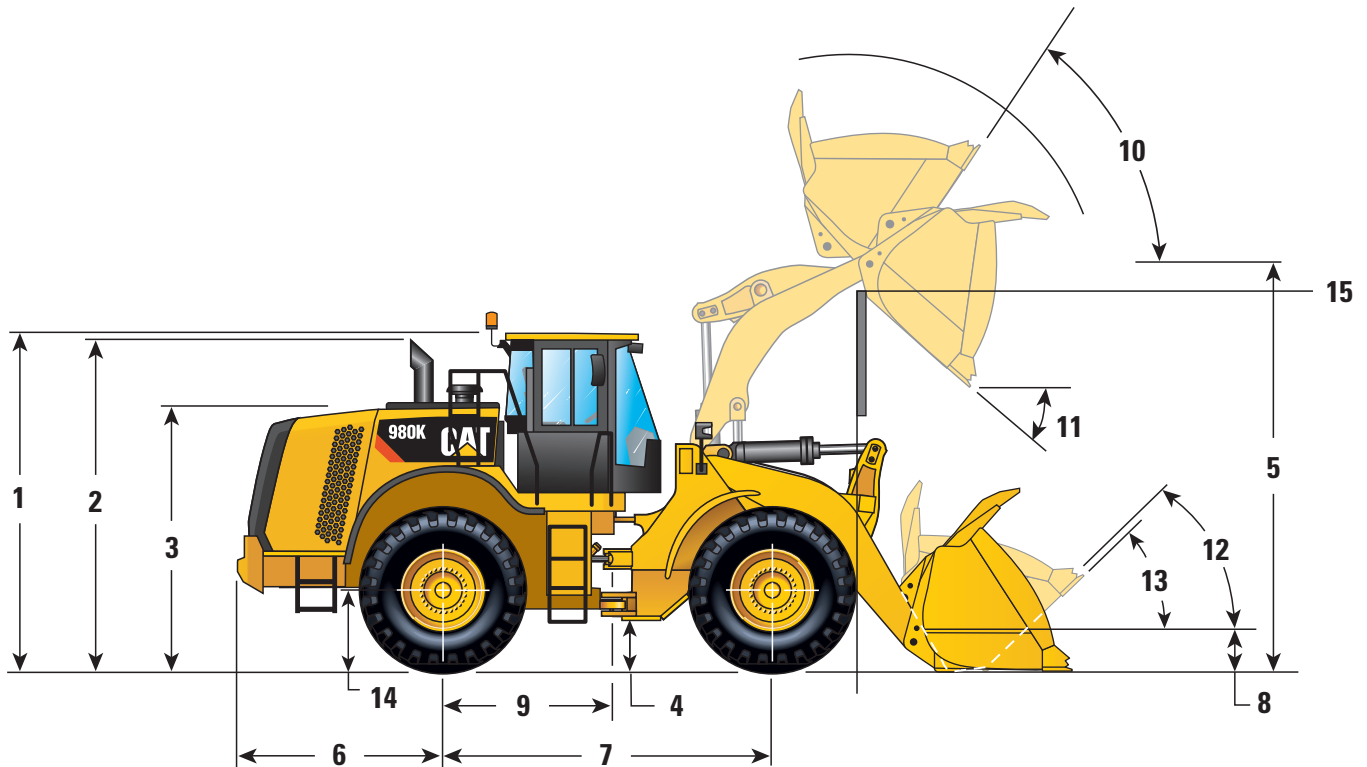
## Cab

|  |                             |  |
|--|-----------------------------|--|
| ROPS/FOPS  | Meets SAE and ISO standards |  |
| <ul style="list-style-type: none"> <li>• Cat cab with a four post integrated Rollover Protective Structure (ROPS) are standard in North America and Europe.</li> <li>• ROPS meets SAE J1040 APR88 and ISO 3471:1994 criteria.</li> <li>• Falling Objects Protective Structure (FOPS) meets SAE J231 JAN81 and ISO:1992 Level II criteria.</li> <li>• The sound values indicated below are for specific operating conditions only. Machine and operator sound levels will vary at different engine and/or cooling fan speeds. Hearing protection may be needed when the machine is operated with a cabin that is not properly maintained, or when the doors and/or windows are open for extended periods or in a noisy environment.</li> <li>• The operator sound pressure level for a standard machine configuration, measured according to the procedures specified in ISO 6396:2008, is 72 dB(A) with the cooling fan speed set at maximum value.</li> <li>• The machine sound power level for a standard machine configuration, measured according to the procedures specified in ISO 6395:2008, is 112 dB(A) with the cooling fan speed set at maximum value.</li> <li>• The machine sound pressure level for a standard machine configuration, measured according to the procedures specified in SAE J88:2006, is 78 dB(A). The measurement was conducted under the following conditions: distance of 15 m (49.2 ft), moving forward in an intermediate gear ratio, static hydraulic cycle (with no payload) and with the cooling fan speed set at maximum value.</li> <li>• The operator sound pressure level for a machine installed with a Low Sound package, measured according to the procedures specified in ISO 6396:2008, is 72 dB(A) with the cooling fan speed set at maximum value.</li> <li>• The machine sound power level for a machine installed with a Low Sound package, measured according to the procedures specified in ISO 6396:2008, is 109 dB(A) with the cooling fan speed set at maximum value.</li> </ul> |                             |  |

## Service Refill Capacities

|  |       |           |
|--|-------|-----------|
| Fuel Tank – Standard                   | 447 L | 118.1 gal |
| Cooling System                         | 70 L  | 18.5 gal  |
| Crankcase                              | 37 L  | 9.8 gal   |
| Transmission                           | 73 L  | 19.3 gal  |
| Differentials and Final Drives – Front | 84 L  | 22.2 gal  |
| Differentials and Final Drives – Rear  | 84 L  | 22.2 gal  |
| Hydraulic Tank                         | 280 L | 74.0 gal  |

# 980K Wheel Loader



**Dimensions** (All dimensions are approximate and based on L3 Michelin XHA2 tires.)

|  |            |       |
|--|------------|-------|
| <b>1</b> Height to Top of ROPS   | 3778 mm    | 12'5" |
| <b>2</b> Height to Top of Exhaust Pipe   | 3706 mm    | 12'2" |
| <b>3</b> Height to Top of Hood   | 3078 mm    | 10'1" |
| <b>4</b> Ground Clearance with 29.5R25 (See Tire Option Chart for Other Tires) | 429 mm     | 1'5"  |
| <b>5</b> B-Pin Height – Standard   | 4508 mm    | 14'9" |
| B-Pin Height – High Lift   | 4729 mm    | 15'6" |
| <b>6</b> Center Line of Rear Axle to Edge of Counterweight                     | 2510 mm    | 8'2"  |
| <b>7</b> Wheelbase   | 3700 mm    | 12'1" |
| <b>8</b> B-Pin Height @ Carry – Standard                                       | 642 mm     | 2'1"  |
| <b>9</b> Center Line of Rear Axle to Hitch                                     | 1850 mm    | 6'1"  |
| <b>10</b> Rack Back @ Maximum Lift   | 61 degrees |       |
| <b>11</b> Dump Angle @ Maximum Lift  | 52 degrees |       |
| <b>12</b> Rack Back @ Carry  | 49 degrees |       |
| <b>13</b> Rack Back @ Ground   | 41 degrees |       |
| <b>14</b> Height to Center Line of Axle  | 854 mm     | 2'10" |
| <b>15</b> Lift Arm Clearance – Standard Lift                                   | 3764 mm    | 12'4" |
| Lift Arm Clearance – High Lift   | 4010 mm    | 13'3" |

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